

WHAT IS CLAIMED:

1. A refuse receptacle lifter assembly adapted for attachment to front end of front load refuse collection vehicles of the type that are adapted to carry a collection container forward of the vehicle for the accumulation of a quantity of refuse before dumping into a collection cavity in the vehicle, the lifter assembly comprising:

(a) a receptacle lifter for engaging, lifting and inverting refuse receptacles; and

(b) a transporter mounted at the front of the vehicle, the transporter including a track member carrying the receptacle lifter and movable laterally between an extended pickup position in which the track member extends substantially beyond a side of the vehicle to allow the lifter to engage curbside refuse receptacles and a retracted dumping position in which the lifter is located in proximity to the collection container for dumping the refuse receptacle contents thereinto.

2. The refuse receptacle lifter assembly of claim 1, wherein said track member comprises a housing member fixedly mounted to the vehicle, a sliding member to which the receptacle lifter is secured, and an hydraulic cylinder interposed between the housing member and the sliding member for moving the lifter assembly between the pickup and dumping positions.

3. The refuse receptacle lifter assembly of claim 2 wherein the housing member further comprises an elongated tubular member that receives the sliding member therein.

4. The refuse receptacle lifter assembly of claim 1,

-16-

wherein said transporter comprises a lifter support member pivotally attached to said track member for moving said receptacle lifter between a stored position generally adjacent to the front end of the vehicle and the retracted dumping position spaced forwardly of the vehicle and laterally of the collection container.

5. The refuse receptacle lifter assembly of claim 4, wherein said lifter support member is positioned generally parallel to said track member when said receptacle lifter is in the stored position and generally perpendicular to said track member when said receptacle lifter is in the retracted dumping position.

6. The refuse receptacle lifter assembly of claim 4, wherein said lifter support member further comprises a pair of spaced-apart, horizontally oriented beams having an outboard end to which the receptacle lifter is secured and an inboard end by which the lifter support member is pivotally secured to the track member, and an hydraulic cylinder interposed between the track member and lifter support member for moving the receptacle lifter between the stored and retracted dumping positions.

7. A refuse collection vehicle comprising: /

(a) a refuse collection vehicle including a front end, a rear end, two opposed sides, and a refuse receiving cavity;

(b) a lifter assembly carried by said vehicle at the front end thereof comprising:

(i) a refuse receptacle lifter for engaging, lifting, and inverting a refuse receptacle to dump the contents of the

-17-

refuse receptacle into a collection container; and

(ii) a transporter located at the front end of said vehicle, said transporter carrying said refuse receptacle lifter and movable in a generally side to side direction so as to move said lifter relative to a collection container between a refuse receptacle engaging position spaced laterally from a collection container and a receptacle dumping position generally proximate to a collection container;

whereby said lifter assembly may be used to engage, lift and dump contents of curbside refuse receptacles and the like into a front loaded collection container.

8. The refuse collection vehicle of claim 7, wherein said transporter comprises a track member carrying said refuse receptacle lifter and movable laterally between said receptacle engaging position in which the track member extends substantially beyond a side of the vehicle to said receptacle engaging position to allow said lifter to engage curbside refuse receptacles and said dumping position in which the lifter is located in proximity to a collection container for dumping the refuse receptacle contents thereinto.

9. The refuse collection vehicle of claim 8, wherein said track member comprises a housing member fixedly mounted to the front end of the vehicle, a sliding member to which the receptacle lifter is secured, and an hydraulic cylinder interposed between the housing member and the sliding member for moving the lifter assembly between the pickup and dumping positions.

-18-

10. The refuse collection vehicle of claim 9, wherein the housing member further comprises an elongated tubular member that receives the sliding member therein.

11. The refuse collection vehicle of claim 10, wherein said transporter comprises a lifter support member pivotally attached to said track member for moving said receptacle lifter between a stored position generally adjacent to the front end of the vehicle and the receptacle dumping position spaced forwardly of the vehicle and laterally of a collection container.

12. The refuse collection vehicle of claim 11, wherein said lifter support member is positioned generally parallel to said track member when said receptacle lifter is in the stored position and generally perpendicular to said track member when said receptacle lifter is in the receptacle dumping position.

13. A refuse receptacle lifter assembly adapted for attachment to front end of front load refuse collection vehicles of the type that are adapted to carry a collection container forward of the vehicle for the accumulation of a quantity of refuse before dumping into a collection cavity in the vehicle, the lifter assembly comprising:

- (a) a receptacle lifter for engaging, lifting and inverting refuse receptacles;

- (b) a transporter mounted at the front of the vehicle carrying the receptacle lifter, said transporter comprising a lifter support member pivotally attached to the front end of the vehicle for moving said receptacle lifter between a stored position generally adjacent to the front end of the vehicle and

the retracted dumping position spaced forwardly of the vehicle and laterally of the collection container.

14. The refuse receptacle lifter assembly of claim 13, wherein said lifter support member is positioned generally parallel to the front end of the vehicle when said receptacle lifter is in the stored position and generally perpendicular to the front end of the vehicle when said receptacle lifter is in the retracted dumping position.

15. The refuse receptacle lifter assembly of claim 13, wherein said lifter support member further comprises a pair of spaced-apart, horizontally oriented beams having an outboard end to which the receptacle lifter is secured and an inboard end by which the lifter support member is pivotally secured to the track member, and an hydraulic cylinder interposed between the track member and lifter support member for moving the receptacle lifter between the stored and retracted dumping positions.

16. A refuse collection vehicle comprising:

(a) a refuse collection vehicle including a front end, a rear end, two opposed sides, and a refuse receiving cavity;

(b) a lifter assembly carried by said vehicle at the front end thereof comprising:

(i) a refuse receptacle lifter for engaging, lifting, and inverting a refuse receptacle to dump the contents of the refuse receptacle into a collection container; and

(ii) a transporter located at the front end of said vehicle, said transporter comprising a lifter support member pivotally attached to the front end of the vehicle for moving

-20-

said receptacle lifter between a stored position generally adjacent to the front end of the vehicle and the receptacle dumping position spaced forwardly of the vehicle and laterally of a collection container.

17. The refuse collection vehicle of claim 16, wherein said lifter support member is positioned generally parallel to the front end of the vehicle when said receptacle lifter is in the stored position and generally perpendicular to the front end of the vehicle when said receptacle lifter is in the receptacle dumping position.

18. The refuse receptacle lifter assembly of claim 4, wherein said lifter support member further comprises a pair of spaced-apart, horizontally oriented beams having an outboard end to which the receptacle lifter is secured and an inboard end by which the lifter support member is pivotally secured to the track member, and an hydraulic cylinder interposed between the track member and lifter support member for moving the receptacle lifter between the stored and retracted dumping positions.

19. A refuse receptacle lifter assembly adapted for attachment to front end of front load refuse collection vehicles of the type that are adapted to carry a collection container forward of the vehicle for the accumulation of a quantity of refuse before dumping into a collection cavity in the vehicle, the lifter assembly comprising:

(a) a receptacle lifter for engaging, lifting and inverting refuse receptacles;

(b) a transporter mounted in a generally transverse

-21-

position at the front of the vehicle, the transporter including a track member carrying the receptacle lifter and movable laterally between an extended pickup position in which the track member extends substantially beyond a side of the vehicle to allow the lifter to engage curbside refuse receptacles and a retracted dumping position in which the lifter is located in proximity to the collection container for dumping the refuse receptacle contents thereinto; said transporter further comprising a lifter support member pivotally attached to said track member for moving said receptacle lifter between a stored position generally adjacent to the front end of the vehicle and the retracted dumping position spaced forwardly of the vehicle and laterally of the collection container.

20. The refuse receptacle lifter assembly of claim 19, wherein said track member comprises a housing member fixedly mounted to the vehicle, a sliding member to which the receptacle lifter is secured, and an hydraulic cylinder interposed between the housing member and the sliding member for moving the lifter assembly between the pickup and dumping positions.

21. The refuse receptacle lifter assembly of claim 20 wherein the housing member further comprises an elongated tubular member that receives the sliding member therein.

22. The refuse receptacle lifter assembly of claim 19, wherein said lifter support member is positioned generally parallel to said track member when said receptacle lifter is in the stored position and generally perpendicular to said track member when said receptacle lifter is in the retracted dumping

position.

23. The refuse receptacle lifter assembly of claim 19, wherein said lifter support member further comprises a pair of spaced-apart, horizontally oriented beams having an outboard end to which the receptacle lifter is secured and an inboard end by which the lifter support member is pivotally secured to the track member, and an hydraulic cylinder interposed between the track member and lifter support member for moving the receptacle lifter between the stored and retracted dumping positions.

24. A refuse collection vehicle comprising: /

(a) a refuse collection vehicle including a front end, a rear end, two opposed sides, and a refuse receiving cavity;

(b) a lifter assembly carried by said vehicle at the front end thereof comprising:

(i) a refuse receptacle lifter for engaging, lifting, and inverting a refuse receptacle to dump the contents of the refuse receptacle into a collection container; and

(ii) a transporter located at the front end of said vehicle, said transporter carrying said refuse receptacle lifter and movable in a generally side to side direction so as to move said lifter relative to a collection container between a refuse receptacle engaging position spaced laterally from a collection container and a receptacle dumping position generally proximate to a collection container; said transporter further comprising a lifter support member for moving said receptacle lifter between a stored position generally adjacent to the front end of the vehicle and the receptacle dumping position spaced forwardly of



-23-

the vehicle and laterally of a collection container; whereby said lifter assembly may be used to engage, lift and dump contents of curbside refuse receptacles and the like into a front loaded collection container.

25. The refuse collection vehicle of claim 24, wherein said transporter comprises a track member carrying said refuse receptacle lifter and movable laterally between said receptacle engaging position in which the track member extends substantially beyond one side of the vehicle to said receptacle engaging position to allow said lifter to engage curbside refuse receptacles and said dumping position in which the lifter is located in proximity to a collection container for dumping the refuse receptacle contents thereinto.

26. The refuse collection vehicle of claim 25, wherein said track member comprises a housing member fixedly mounted to the front end of the vehicle, a sliding member to which the receptacle lifter is secured, and an hydraulic cylinder interposed between the housing member and the sliding member for moving the lifter assembly between the receptacle engaging and dumping positions.

27. The refuse collection vehicle of claim 26 wherein the housing member further comprises an elongated tubular member that receives the sliding member therein.

28. The refuse collection vehicle of claim 45, wherein said lifter support member is positioned generally parallel to said track member when said receptacle lifter is in the stored position and generally perpendicular to said track member when

said receptacle lifter is in the receptacle dumping position.

29. The refuse receptacle lifter assembly of claim 28, wherein said lifter support member further comprises a pair of spaced-apart, horizontally oriented beams having an outboard end to which the receptacle lifter is secured and an inboard end by which the lifter support member is pivotally secured to the track member, and an hydraulic cylinder interposed between the track member and lifter support member for moving the receptacle lifter between the stored and retracted dumping positions.

30. A method refuse collection comprising the steps: /

(A) providing a combination refuse collection vehicle and collection container comprising:

(i) a refuse collection vehicle including a front end, a rear end and opposed sides, and further including a refuse receiving cavity;

(ii) a collection container carried at the front of the vehicle;

(iii) a lifter assembly carried by the vehicle at the front thereof comprising:

(a) a refuse receptacle lifter for engaging, lifting, and inverting a refuse receptacle to dump contents of the refuse receptacle into said collection container; and

(b) a transporter carried at the front of said vehicle aft of said collection container, the transporter carrying said refuse receptacle lifter for movement in a generally side to side direction relative to the collection container, between a refuse receptacle engaging position spaced

-25-

from collection container and a receptacle dumping position generally proximate to the collection container;

(B) positioning the combination refuse collection vehicle and container generally adjacent to a refuse receptacle;

(C) moving said refuse receptacle lifter to the refuse receptacle engaging position;

(D) engaging said refuse receptacle;

(E) moving said refuse receptacle lifter and refuse receptacle to the dumping position;

(F) lifting and dumping the contents of said refuse receptacle into said front loaded collection container;

(G) moving said refuse receptacle lifter to the engaging position; and

(H) releasing the refuse receptacle.